

AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** A transgenic non-human mammal selected from the group consisting of bovine, horse, pig, goat, rabbit, dog, cat, mouse, rat, hamster, and guinea pig, comprising a transferred recombinant mouse GANP gene or ~~[[a]]~~ human GANP gene encoding and expressing a protein of SEQ ID NO: 2 or 4 or progeny thereof encoding and expressing said protein~~[[,]] wherein said transgenic non-human mammal expresses GANP.~~

2. **(Previously Presented)** The transgenic non-human mammal according to claim 1, wherein the GANP gene is expressed in B cells of the transgenic non-human mammal, or its progeny.

3. **(Currently Amended)** The transgenic non-human mammal according to claim 1 ~~[[or 2]]~~ wherein the mammal has been generated from GANP gene-transfected ES cells, or its progeny.

4. **(Cancelled)**

5. **(Currently Amended)** A part of a transgenic non-human mammal selected from the group consisting of bovine, horse, pig, goat, rabbit, dog, cat, mouse, rat, hamster, and guinea pig, comprising a transferred recombinant mouse GANP gene or ~~[[a]]~~ human GANP gene encoding and expressing a protein of SEQ ID NO: 2 or 4, or progeny thereof encoding and expressing said protein, ~~wherein said transgenic non-human mammal expresses GANP.~~

6. (Previously Presented) A method of producing a high affinity antibody, comprising:
administering an antigen to the transgenic non-human mammal according to claim 1 or
its progeny;
waiting for a time sufficient for said non-human mammal to generate antibodies to said
antigen; and
recovering the antibody from the resultant mammal or progeny.

7-11. (Cancelled)

12. (**Currently Amended**) A high affinity-antibody producing cell which is taken from
a transgenic non-human mammal selected from the group consisting of bovine, horse, pig, goat,
rabbit, dog, cat, mouse, rat, hamster, and guinea pig, comprising a transferred recombinant
mouse GANP gene or [[a]] human GANP gene encoding and expressing a protein comprising
SEQ ID NO: 2 or 4, or progeny thereof encoding and expressing said protein, ~~wherein said~~
~~transgenic non-human mammal expresses GANP,~~ and wherein said transgenic mammal or its
progeny has been administered an antigen.

13. (Previously Presented) The method according to claim 6, comprising:
obtaining blood from the mouse after administration of the antigen, separating and
purifying antibodies from the blood to recover the antibody.

14. (Previously Presented) The method according to claim 6, wherein the antigen is administered two to three times at intervals of from 7 to 30 days.

15. (Currently Amended) The method according to claim 6, wherein an administration [[does]] dose of the antigen is from 0.05 mg to 2 mg.

16. (Previously Presented) The method according to claim 6, wherein the route of administration is subcutaneous, dermal, intraperitoneal, intravenous or intramuscular.

17. (Currently Amended) The transgenic non-human mammal according to claim 1, wherein said GANP gene is operably ~~limited~~ linked to a human IgG enhancer, or its progeny.

18. (Currently Amended) The method according to claim 6, wherein said [[GNAP]] GANP gene is operably ~~limited~~ linked to a human IgG enhancer.

19. (Currently Amended) The cell according to claim 12, wherein said GANP gene is operably ~~limited~~ linked to a human IgG enhancer, or its progeny.